

Appl. Serial No. 10/005,485
Amendment Dated 28 December 2004
Reply to Office Action of 13 August 2004

70200.0101

Amendments to the Specification

In The Specification

Please amend the specification by replacing paragraph number 0007 with the following rewritten paragraph:

[0007] ~~An exemplary discussion of packet-based voice systems appears in~~
~~APPENDIX A.~~ Several communication protocols are used to deliver packet-based VON
services. They include voice over the Internet Protocol (VoIP), voice over frame relay,
voice over asynchronous transfer mode, voice over digital subscriber line and voice
over cable. Discussions of packet-based computer networks for the transmission of
voice and for providing telephone services appear in various documents, including U.S.
patents.

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Please amend the specification by replacing paragraph number 0009 with the following rewritten paragraph:

[0009] Specialized test equipment for the PSTN is available from a number of providers. The test equipment ranges from simple hand-held testers for service technicians to sophisticated testers for automated network management. These testers are intended to enable telephone technicians to verify the proper operation and quality of voice communication on the PSTN and to track down faults. For example, the Ameritec Corporation Model AM48 can be used to perform tests to check for the presence of dial tone, make test calls, and measure signal levels and noise. ~~A brochure describing the Ameritec Corporation Model AM48 appears at APPENDIX B. The patent literature includes patents relating to methods and equipment for testing telephone lines.~~

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Please amend the specification by replacing paragraph number 0011 with the following rewritten paragraph:

[0011] New testers have been developed for VON systems. An example is the Agilent Technologies Telegra, Model R-VQT J1981A, which measure objective speech quality and other communication parameters including delay, echo and Dual Tone Multiple Frequency (DTMF) performance. ~~A data sheet on the Agilent Technologies Telegra, Model R-VQT J1981A appears in APPENDIX C.~~ Testers such as the Agilent Telegra can provide useful overall end-to-end voice quality measurements and can detect problems.

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Please amend the specification by replacing paragraph number 0013 with the following rewritten paragraph:

[0013] The VON industry has developed a number of test standards for measuring the quality of voice communication across packet-based networks. These test standards include the International Telecommunication Union (ITU) Recommendation T-P.861 Perceptual Speech Quality Measure (PSQM), which objectively measures audio quality. ~~A copy of ITU Recommendation T-P.861 appears as APPENDIX D.~~ VON testers, such as the Agilent Telegra R-VQT J1981A, perform PSQM measurement by playing a standard coded speech file into a VON connection and recording and analyzing the received speech file at the other end of the connection.

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Please amend the specification by replacing paragraph number 0014 with the following rewritten paragraph:

[0014] The PSQM test and similar speech quality-oriented measurements cannot be performed by the Agilent Telegra tester on digital telephones such as the Cisco Systems IP Telephone Model 7910. ~~The Cisco Systems IP Telephone Model 7910 is described in a brochure that appears in APPENDIX E.~~ This limitation is due to the fact that digital telephones do not have a traditional analog telephone line interface. This limitation can prevent the measurement of voice quality on an end-to-end basis, as well as other performance and functional tests that may be needed. A further limitation faced by PSQM testers, such as the Agilent Telegra, is that they can check the overall quality of an end-to-end connection, but they cannot provide information as to where the problems may be occurring on the intermediary nodes. The tester must originate and complete the call from the same location.

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Please amend the specification by deleting APPENDIX A, APPENDIX B,
APPENDIX C, APPENDIX D, and APPENDIX E.